Clapper Rail *(Rallus longirostris)*

(21 subspecies; 17 within plan area)

Conservation Concern Category:
Moderate Concern

Population Trend (PT)

R. longirostris obsoletus—Declining (Delany and Scott 2002: del Hoyo et al. 1996)

R. longirostris levipes—Declining (Delany and Scott 2002: del Hoyo et al. 1996)

R. longirostris yumanensis—Declining (Delany and Scott 2002: del Hoyo et al. 1996)

R. longirostris beldingi—unknown (Delany and Scott 2002); For *beldingi*, Bancroft (1927) reported this species in Scammon's lagoon as very common but now is very rare (E. Palacios, pers.comm.)

R. longirostris crepitans—Stable (Delany and Scott 2002: Eddleman and Conway 1994)

R. longirostris waynei—Stable (Delany and Scott 2002: Eddleman and Conway 1994)

R. longirostris saturatus-- unknown (Delany and Scott 2002)

R. longirostris pallidus-- unknown (Delany and Scott 2002)

R. longirostris grossi-- unknown (Delany and Scott 2002)

R. longirostris belizensis-- unknown (Delany and Scott 2002)

R. longirostris scotti-- unknown (Delany and Scott 2002)

R. longirostris insularum-- unknown (Delany and Scott 2002)

R. longirostris coryi-- unknown (Delany and Scott 2002)

R. longirostris leucophaeus-- unknown (Delany and Scott 2002)

R. longirostris caribaeus-- unknown (Delany and Scott 2002)

R. longirostris margaritae-- unknown (Delany and Scott 2002)

R. longirostris pelodramus— unknown (Delany and Scott 2002)

"local loss of breeding populations has occurred in e US…distribution of subspecies in w US much reduced since 1900…few trend data available except for endangered western subspecies which have declined greatly during past 100 yr…on basis of limited BBS data, rail populations showed no increasing or decreasing trend from 1966 to 1994…populations appear to have declined at rate of 8.2% in US during 1966-1979…declines appear greatest in Louisiana and Texas…rails occurred on only 20 routes with usable data during this time so this trend should be interpreted with extreme caution…extremely abundant in early 1900s…" (Eddleman and Conway 1998)

"in the US, this species was formerly abundant...by the beginning of the 20th century the birds were far less abundance and numbers have decreased significantly since then…although most e US races are relatively numerous, local loss of breeding populations has occurred through habitat loss and degradation…BBS data (1966-1991) indicate a mean annual increase of 4.3% in ne US populations and no change for entire US…some races formerly considered locally common or fairly common (e.g. *coryi, caribaeus, grossi, belizensis, margaritae, pelodramus, cypereti*)…" (Taylor 1998)

Estimated apparently stable population based on past 30 years (Marshbird Workshop 2005)

PT FACTOR SCORE=3

Population Size (PS)

R. longirostris obsoletus—400 total individuals (Delany and Scott 2002: del Hoyo et al. 1996)

R. longirostris levipes—970-1,170 total individuals (Delany and Scott 2002: Eddleman and Conway 1994)

R. longirostris yumanensis—2,100 total individuals (Delany and Scott 2002: Eddleman and Conway 1994); in the Colorado River delta in Mexico, it has fluctuated between 3,900 and 6,600 between 1999 and 2004 (Hinojosa-Huerta et al. 2001)

R. longirostris beldingi-- unknown (Delany and Scott 2002)

R. longirostris crepitans-- unknown (Delany and Scott 2002)

R. longirostris waynei-- unknown (Delany and Scott 2002)

R. longirostris saturatus-- unknown (Delany and Scott 2002)

R. longirostris pallidus-- unknown (Delany and Scott 2002)

R. longirostris grossi-- unknown (Delany and Scott 2002)

R. longirostris belizensis-- unknown (Delany and Scott 2002)

R. longirostris scotti-- unknown (Delany and Scott 2002)

R. longirostris insularum-- unknown (Delany and Scott 2002)

R. longirostris coryi-- unknown (Delany and Scott 2002)

R. longirostris leucophaeus-- unknown (Delany and Scott 2002)

R. longirostris caribaeus-- unknown (Delany and Scott 2002)

R. longirostris margaritae-- unknown (Delany and Scott 2002)

R. longirostris pelodramus— unknown (Delany and Scott 2002)

"density in ideal habitat 2.2-4.7 individuals/ha (Georgia), 3.2/ha (New Jersey), 8.4/ha

(Virgina)…numbers active nests ranged from 1.0 to 1.6/ha (New Jersey), 4.2/ha (Virginia), 0.9-1.6/ha (California)…other California densities 0.12 pair/ha, 2.0 individuals/ha…0.09 to 0.79 individuals/ha (Arizona)…" (Eddleman and Conway 1998)

"US population of *levipes* is now estimated at 190 pairs with about 240 pairs left in Mexico…most of the remaining population of *obsoletus* is about 400 birds in 1991 (down from 4,200-6,000 in the early 1970s) occurs in San Francisco Bay…the Guadeloupe archipelago holds only about 40 pairs of *caribaeus*…" (Taylor 1998)

"in Mississippi we found our greatest densities of clapper rails to be 9.95/ha with a 95% CI range: 7.73-12.83."(S. Rush pers comm.)

Estimated population size range (Marshbird Workshop 2005)

PS FACTOR SCORE=2

Threats to Breeding (TB)

"habitat loss and degradation led to losses in e US…losses of eggs and young caused by high tides associated with storms…factors affecting populations include territoriality, predation, competition with Laughing Gulls, pesticides, habitat loss…predation on adults by introduced Norway rats and red foxes…predation is principal cause of mortality in adult *yumanensis* in sw Arizona…availability of quality habitat principal limiting factor for west coast subspecies…nest-site availability thought to limit *levipes* populations in s California…mercury elevated in breast muscle…selenium levels elevated in *obsoletus* eggs…DDE levels and other OCs elevated in *levipes* eggs…interference with tidal flow is the most common mode of habitat degradation for Clapper Rails…loss and degradation of habitat because of urbanization in coastal California has been severe…introduction of exotic mammals such as red foxes, rats, dogs, and cats is a major factor in the decline of *obsoletus* since 1970, and to a lesser extent, *levipes*…rails sensitive to human and researcher disturbance…" (Eddleman and Conway 1998)

"the race *levipes* has declined mainly because of habitat loss…severe threats are posed by introduced predators and by habitat destruction in Mexico…low fertility and hatching success in n populations may result from contaminants, or from inbreeding…*obsoletus* originally threatened by hunting, but industry, agriculture, saltpan construction and urbanization have drastically reduced its habitat this century…also threatened by wetland loss and high water flows, being susceptible to the effects of development projects along Colorado River…all NA races are vulnerable to habitat destruction and the effects of pesticides and contaminants…birds are also excluded from marshes by the presence of cattle…rails are also hunted extensively in east and gulf coastal states…Guadeloupe population threatened by egg-collecting for food and habitat destruction…natural and introduced predators…" (Taylor 1998)

(Caveat to Taylor use of "extensive": U.S. CLRA harvest in 2003 and 2004 was estimated to be 6,300 and 9,200, respectively. (see USFWS 2005) This was about 18% of the rail harvest. None were harvested in Louisiana, Mississippi, or Alabama. About 20,000 rail hunters in 2004, so very few compared to the hundreds of thousands of duck hunters. Probably fewer than 4,000 people hunted CLRA (20,000 times 0.18) because not all rail hunters had access to CLRA. Only 12 states in the Atlantic Flyway, 3 states in the Mississippi Flyway, and 1 in the Central Flyway hunt CLRA, so hardly extensive. (H. Hands, pers.comm.)

"hunter interest and harvest in US appear to low and declining…" (J. Roberson, pers.comm.)

One likely reason for the decline in *beldingi* in this wetland is saltpan construction (more than 20,000 ha of saltmarsh were converted into saltworks in the 1950s), another could be predation by coyotes that are very abundant in the Vizcaino wetlands (including Lagunas Manuela, Guerrero Negro, Ojo de Liebre, L Bocana, El Coyote, and San Ignacio). Another hypothesis for this decline is that predation is a limiting factor because there are no roosting sites during high tides, so they are predated by coyotes when the rails are pushed to the margins of the wetland when spring tides. In the wetlands with mangrove (Lagunas Ojo de Liebre, Guerreron Negro and Manuela have no mangrove only saltmarsh) in Baja California Sur, Clapper Rails are more abundant, during high tides they roost on the mangrove trees and are inaccessible to ground predators like coyotes (E. Palacios, pers.comm.)

levipes Bahia San Quintín is largely intact, although threatened by resort developments planned by international companies. Agriculture encroachment into upper saltmarsh wetlands is actually occurring in the wetlands of Baja California. Pesticides used in the adjacent agricultural habitat also poses a hazard to the avifauna and its food source, but the effects are not documented. Livestock grazing (goats and cows) is a recent threat to the salt marsh habitat of Bahia San Quintin. Excessive grazing leads to loss of emergent cover, trampling, and disturbance of nesting pairs, and can have profound negative effects on ground nesting birds such as rails. Human disturbance is also a current threat to the conservation of natural areas and resources of this wetland. Because Bahia San Quintín is close to the major population centers of southern California, is accessible to tourists with different interests (recreational hunting, sport fishing, camping, boating, diving, etc.) and the pressure to natural areas and resources is year round. This wetland lacks of a management plan and there is no regulations to protect the ecological integrity

of those priority habitats that are being affected by human activities. For the wetlands of Baja California Sur (with *beldingi*) the main threats are marinas and shrimp aquaculture which involve dredging and interference with tidal flow and habitat degradation. (E. Palacios, pers.comm.)

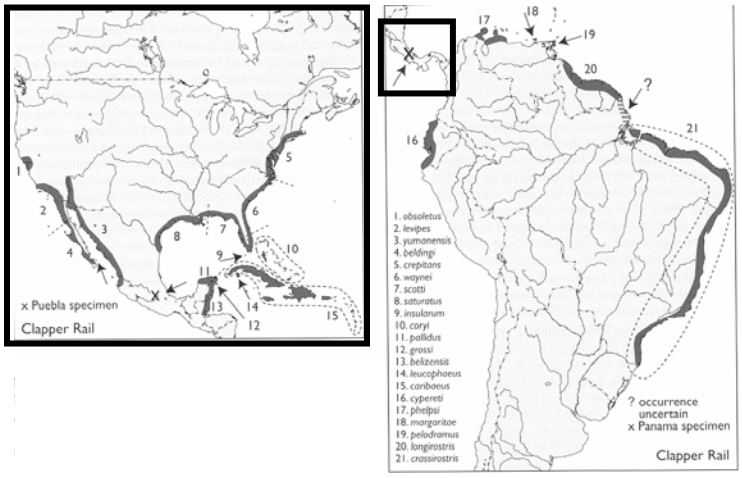
TB FACTOR SCORE=4

Threats to Non-breeding (TN)

"storms affecting major wintering areas on s Atlantic coast may cause direct mortality of large numbers of adults…sometimes collides with TV towers, lighthouses, telephone wires, fences…" (Eddleman and Conway 1998)

TN FACTOR SCORE=4

Global Range (Taylor 1998; inset=plan area range)



Breeding Distribution (BD)

from Delany and Scott 2002:

R. longirostris obsoletus—C California, mainly San Francisco Bay

R. longirostris levipes—Coastal S California to N Baja California

R. longirostris yumanensis—SE California, SW Arizona & NW Mexico

R. longirostris beldingi—S Baja California

R. longirostris crepitans—Coastal Connecticut S to NE North Carolina

R. longirostris waynei—Coaslt SE North Carolina to E Florida

R. longirostris saturatus—Gulf Coast SW Alabama to extreme NE Mexico

R. longirostris pallidus—Coastal Yucatan (SE Mexico)

R. longirostris grossi—Quintana Roo (SE Mexico)

R. longirostris belizensis—Ycacos Lagoon, Belize

R. longirostris scotti—Coastal Florida

R. longirostris insularum—Florida Keys, USA

R. longirostris coryi—Bahamas

R. longirostris leucophaeus—Is of Pines (Cuba)

R. longirostris caribeaus—Cuba to Puerto rico & Lesser Antilles E to Antigua; Guadeloupe

R. longirostris margaritae—Margarita Is (Venezuela)

R. longirostris pelodramus—Trinidad

1,189, 100 km^2 (plan area distribution; estimated from range maps)

BD FACTOR SCORE=4

Non-breeding Distribution (ND)

from Delany and Scott 2002:

R. longirostris obsoletus—C California, mainly San Francisco Bay

R. longirostris levipes—Coastal S California to N Baja California

R. longirostris yumanensis—SE California, SW Arizona & NW Mexico

R. longirostris beldingi—S Baja California

R. longirostris crepitans—Coastal Connecticut S to NE North Carolina

R. longirostris waynei—Coastal SE North Carolina to E Florida

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R. longirostris insularum—Florida Keys, USA

R. longirostris coryi—Bahamas

R. longirostris leucophaeus—Is of Pines (Cuba)

R. longirostris caribeaus—Cuba to Puerto rico & Lesser Antilles E to Antigua; Guadeloupe

R. longirostris margaritae—Margarita Is (Venezuela)

R. longirostris pelodramus—Trinidad

1,189, 100 km^2 (plan area distribution; estimated from range maps)

ND FACTOR SCORE=5

Literature Cited:

Eddleman, W.R and Conway, C.J. 1998. Clapper Rail *(Rallus longirostris crepitans). In* The Birds of North America, No. 340 (A.Poole and F. Gills, eds.). The Birds of North America, Inc., Philadelphia, PA. Pp: 20

Delany, S. and S. Scott. 2002. *Waterbird Population Estimates – Third Edition. Wetlands International Global Series No. 12*, Wageningen, The Netherlands. Pp: 116

Hinojosa-Huerta, O., S. DeStefano, and W. Shaw. 2001. Abundance and distribution of the Yuma Clapper Rail (*Rallus longirostris yumanensis*) in the Colorado River delta, Mexico. Journal of Arid Environments 49:171-182.

Taylor, B. 1998. Clapper Rail. *In* Rails: A Guide to the Rails, Crakes, Gallinules and Coots of the World. Yale University Press, New Haven. Pp:269-278

U.S. Fish and Wildlife Service. 2005. Migratory bird harvest information, 2004: preliminary estimates. U.S. Department of the Interior, Washington, D.C. U.S.A. http://www.fws.gov/migratorybirds/reports/whs/Migratory%20Bird%20Harvest%20Information,%202004%20Preliminary%20Estimates.pdf

Additional References:

Eddleman, W. R., and C. J. Conway. 1994. Clapper rail. In T. C. Tacha and C. E. Braun, eds. Migratory shore and upland game bird management in North America. Allen Press, Lawrence, Kansas.